

Spinal Manipulation

competency profile

for physical therapists

The *Essential Competency Profile for Physiotherapists in Canada 2004* (the Profile), developed by the Accreditation Council for Canadian Physiotherapy Academic Programs, the Canadian Alliance of Physiotherapy Regulators, the Canadian Physiotherapy Association, and the Canadian Universities Physical Therapy Academic Council, describes the essential competencies that physical therapists must demonstrate upon entry to the profession and maintain throughout the course of their careers. Essential competencies are defined in the Profile as “the repertoire of measurable knowledge, skills and attitudes required by a physiotherapist throughout his or her professional career”.

This document mirrors the framework of the Profile. It identifies specific performance criteria required of physical therapists to safely perform spinal manipulation. However, it does not reference the elements of the Profile nor has it been developed to provide particular practice examples.

The first spinal manipulation competency profile was developed in 2000 and re-validated in 2007. The profile can be used in many ways: inform physical therapists of the current competencies required in order to safely perform spinal manipulation; provide direction for physical therapy curriculum and post professional education; inform regulatory programs that focus on continuing competency/ quality assurance; provide explicit expectations for physical therapists who perform this intervention; and can be used by policy makers who need to understand the requirements of physical therapists who engage in higher risk activities.

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Terms denoted with a “G” are defined in the Glossary.

ASSUMPTIONS ABOUT THE USE OF SPINAL MANIPULATION BY PHYSICAL THERAPISTS

In developing the competencies^G, a number of assumptions were made. These are used to explain what underlies and supports the competencies identified. They do this by providing critical information about physical therapists who safely and effectively perform spinal manipulation. The assumptions should always accompany the competencies.

Physical therapists who utilize spinal manipulation^G as a physical therapy intervention:

- ▶ Are licensed/registered physical therapists who have received theoretical and clinical education in spinal manipulation as part of either their entry level, post-professional^G and/or postgraduate education^G and have met jurisdictional requirements.
- ▶ Practice within their defined scope.
- ▶ Work within their personal level of competence^G and physical parameters.
- ▶ Possess ongoing knowledge, abilities and psychomotor skills^G to competently fulfill the technical requirements of spinal manipulation.
- ▶ Are committed to providing client-centred^G spinal manipulation interventions.
- ▶ Understand the role of spinal manipulation as a component in the continuum of client^G care.
- ▶ Follow the code of ethics that guides their practice.
- ▶ Support research related to spinal manipulation (e.g.,^G acknowledge its importance, advocate its use, contribute data, utilize outcome measures^G).

DIMENSION 1: PROFESSIONAL ACCOUNTABILITY *assumes professional responsibility and demonstrates safe, ethical, culturally sensitive, and autonomous^G professional practice*

- 1.1 Demonstrates accountability^G to clients, peers, regulatory bodies, and the public in the practice of spinal manipulation.
- 1.2 Demonstrates an awareness of risks^G related to the application of spinal manipulation.
- 1.3 Operates autonomously in the practice of spinal manipulation.
- 1.4 Limits practice of spinal manipulation to the treatment of disorders related to the neuromusculoskeletal^G system.
- 1.5 Reflects^G on the use of spinal manipulation in order to optimize its effectiveness within their practice.
- 1.6 Implements a self-directed plan for updating knowledge and skills related to spinal manipulation.
- 1.7 Complies with jurisdictional, legal and ethical requirements.

- 1.8 Reports adverse events^G related to the practice of spinal manipulation to appropriate stakeholder(s).
- 1.9 Respects the individuality and autonomy of clients.

DIMENSION 2: COMMUNICATION AND COLLABORATION *communicates with clients and professionals in other disciplines to collaborate and coordinate services*

- 2.1 Communicates the results of best available evidence^G related to spinal manipulation to the public, peers, other health professionals, clients, and other appropriate stakeholders.
- 2.2 Communicates the relevant risks, benefits, expected outcomes, and alternate treatment options to clients prior to performing spinal manipulation:
 - ▶ provides clients with sufficient information to enable them to make an informed decision about spinal manipulation;
 - ▶ allows the client sufficient time to consider information and to raise individualized issues about spinal manipulation;
 - ▶ demonstrates sensitivity when dealing with clients who are anxious about spinal manipulation; and
 - ▶ communicates to the client that screening tests will not identify all clients at risk/not at risk for adverse events.
- 2.3 Advises the client of potential risks of spinal manipulation when delivered concurrently by different practitioners for the same problem during the same period of treatment.
- 2.4 Facilitates the appropriate medical follow-up in the case of an adverse event following spinal manipulation.
- 2.5 Informs appropriate health care professionals, regulatory and professional bodies in a timely manner if an adverse event following spinal manipulation occurs.
- 2.6 Refers clients to other health care professionals when indicated.

DIMENSION 3: PROFESSIONAL JUDGMENT AND REASONING *applies principles of critical thinking while solving problems and making decisions*

- 3.1 Recognizes and takes into account how their own background, education, experiences, perspectives, values, and beliefs impact decision-making regarding spinal manipulation.
- 3.2 Takes into consideration the client's understanding, wishes, goals, values, attitudes, beliefs, and circumstances.
- 3.3 Gathers, analyzes, critically appraises, and interprets information to address the client's needs including:
 - ▶ integrating medical diagnostic test findings with subjective and objective examinations as necessary;
 - ▶ integrating best available evidence when selecting pre-manipulative assessment procedures; and

- ▶ integrating best available evidence in the application of spinal manipulation.

3.4 Recognizes that screening tests will not identify all clients at risk/not at risk for adverse events.

DIMENSION 4: CLIENT ASSESSMENT

assesses client's physical and psychosocial status, functional abilities, needs, and goals

- 4.1 Demonstrates an understanding of what constitutes an appropriate assessment prior to, during and following spinal manipulation.
- 4.2 Completes an appropriate subjective examination, including specific questions to identify the client's goals, a preliminary diagnosis^g and risk factors for manipulation in each spinal region.
- 4.3 Applies functional knowledge of anatomy, biomechanics, physiology, pathology, disease processes, and tissue healing to complete an appropriate objective neuromusculoskeletal examination safely and judiciously^g which includes:
- ▶ scanning examination (e.g., observation, range of motion, regional stress tests, vascular and neurological tests including cranial nerve testing, general palpation); and
 - ▶ detailed examination (e.g., palpation, mobility, segmental tests).
- 4.4 Performs position-specific and direction-specific pre-manipulative tests when appropriate.
- 4.5 Monitors the client's response to assessment tests for spinal manipulation.
- 4.6 Interprets responses to assessment tests for spinal manipulation and proceeds accordingly.
- 4.7 Documents assessment tests performed and findings (e.g., subjective, objective, pre-manipulative tests).

DIMENSION 5: PHYSIOTHERAPY DIAGNOSIS/CLINICAL IMPRESSION AND INTERVENTION PLANNING^g

analyzes data collected, establishes the physiotherapy diagnosis/clinical impression and prognosis^g and develops a client-centred physiotherapy intervention^g strategy

- 5.1 Establishes a neuromusculoskeletal diagnosis(es).
- 5.2 Identifies collaborative treatment goals and prognosis for spinal manipulation specific to the neuromusculoskeletal diagnosis(es).
- 5.3 Analyzes and interprets data regarding the relevant risks, benefits and treatment options prior to performing spinal manipulation.
- ▶ Identifies clients at increased risk from spinal manipulation.
- 5.4 Demonstrates an understanding of the indications, precautions and contraindications for spinal manipulation.

- 5.5 Selects appropriate spinal manipulations to achieve the treatment goals.

5.6 Integrates spinal manipulation into the overall treatment plan with other physical therapy interventions.

DIMENSION 6: IMPLEMENTATION AND EVALUATION OF PHYSIOTHERAPY INTERVENTION

implements physiotherapy interventions to meet client/patient needs, evaluates their effectiveness for the client and incorporates findings into future intervention

- 6.1 Applies functional knowledge of anatomy, biomechanics, physiology, pathology, disease processes, and tissue healing when performing spinal manipulation.
- 6.2 Obtains informed consent^g from clients prior to performing spinal manipulation.
- 6.3 Performs selected manipulation techniques on spinal joints.
- 6.4 Recognizes any and all effects of spinal manipulation on the client, including adverse events, and takes appropriate action to maximize client outcomes.
- 6.5 Documents spinal manipulation techniques performed to allow for reproduction of the technique.
- 6.6 Documents the client's response to the spinal manipulation.
- 6.7 Performs and documents post-manipulative evaluations^g.
- 6.8 Utilizes professional judgement in selecting further interventions based on post-manipulative evaluations.
- ▶ Recognizes when spinal manipulation is not effective and discontinue its use.
- 6.9 Instructs clients on post-manipulation care, including latent adverse effects.
- 6.10 Provides education to clients in self-management of their spinal health.

DIMENSION 7: PRACTICE

MANAGEMENT manages the physiotherapist's role and implements physiotherapy services within the diverse contexts of practice

- 7.1 Ensures that spinal manipulation is not delegated to unauthorized personnel.
- 7.2 Ensures that there is an urgent/emergency action plan to address adverse events related to spinal manipulation.
- ▶ Demonstrates knowledge and skill in managing specific adverse events (e.g., severe headache, cranial nerve signs and symptoms, fainting, fracture, stroke).
- 7.3 Verifies that spinal manipulation equipment (e.g., treatment table) is in safe working order and monitors the safety of the equipment.

GLOSSARY

Accountability: The ability to explain and take responsibility for one's actions that are consistent with the agreed upon authority. (Adapted from the Nurses Association of New Brunswick, 1995)

Adverse Event: An unexpected and undesired incident directly associated with the care or services provided to the client that occurs during the process of providing health care and that results in injury, complication or death. (Adapted from *The Canadian Patient Safety Dictionary*, 2003)

Autonomous: Having the authority to make independent decisions regarding client care.

Best available evidence: Clinically relevant research, often from the basic sciences of medicine but especially from patient-centred clinical research into the accuracy and precision of diagnostic tests (including the clinical examination), the power of prognostic markers and the efficacy and safety of therapeutic, rehabilitative and preventive regimens. (*British Medical Journal*, 1996; 312: 71-2)

Client: A client is a patient or the group, community or organization receiving professional services, products or information. (Adapted from the *Essential Competency Profile for Physiotherapists in Canada*, 2004)

Client-centred [practice]: A (health) service in which the client's goals, expectations, needs, and abilities are the focus of all interventions. (Council of Directors of Physical Therapy Academic Programs in Canada and Canadian Physiotherapy Association, 1995)

Competence: The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice. (Adapted from Epstein, R.M. and E. Hundert, 2002)

Competency (competencies): A cluster of related knowledge, skills and attitudes that affects a major part of one's job (a role or responsibility) that correlates with performance in practice and that can be improved via training and development. (Adapted from Parry, 1996)

Diagnosis: The formulation of a conclusion based on analysis of client assessment findings which indicates a need for physiotherapy intervention.

E.G., (e.g.): For example. This abbreviation is used before a list that is intended to be representative of a preceding statement but is not to be assumed to be exhaustive or limiting.

Evaluation [physiotherapy...]: The process of determining the result, impact or effectiveness of physiotherapist management in relation to the client's needs, goals and outcomes established with the client.

Informed consent: Consent is a process of dialogue that is informed if, before giving it, the person received information that a reasonable person in the same circumstances would require in order to make a decision about the treatment. As well, the health care professional must provide responses to requests for additional information including information about the nature, benefits,

material risks, and side effects of the treatment, alternative courses of action and the likely consequences of not having the treatment. Provided there are no significant changes in the nature, expected benefits, material risks of side effects of treatment, a physical therapist may presume that consent to treatment includes consent to variations or adjustments in the treatment. (Adapted from the Briefing Note to the *Health Care Consent Act*, College of Physiotherapists of Ontario, 2005)

Judiciously: Having, exercising or characterized by sound judgement.

Neuromusculoskeletal: The functions of movement and mobility, including functions of bones, joints, muscles and the nervous system. (Adapted from the World Health Organization, 2001)

Outcome measure: The "currency" of measuring change within a specific outcome tool. (Cole et al., 1994)

Physiotherapy intervention: The purposeful and skilled interaction of the physiotherapist with the client using various methods and techniques to produce changes in a client's condition and to meet established client-centred goals and health outcomes. (Adapted from American Physical Therapy Association, 1995)

Planning [physiotherapy intervention...]: The process of developing the most appropriate (intervention) strategy for a client based on the assessment findings, analysis and interpretation, the client's needs, goals, and desired outcomes. (Adapted from College of Physiotherapists of Ontario, 1996)

Post professional education: Education received after graduation (e.g., education done through clinical workshops, seminars, conferences, reading).

Postgraduate education: University education received after successful completion of an entry-level program in physical therapy.

Prognosis: The determination of the level of maximal improvement that might be attained by the client and the amount of time needed to reach that level. (American Physical Therapy Association, 1995)

Psychomotor skill: The ability to integrate the knowledge and the motor skills needed to manipulate safely and effectively.

Reflects: The process of looking back at an experience or situation to analyze what was learned.

Risks: Risks and side effects are: (a) those which are probable or likely to occur; (b) those which are possible rather than probable but can have serious consequences; or (c) anything else which would be considered relevant to know by a reasonable person in the same circumstance. (College of Physiotherapists of Ontario, 1996)

Spinal manipulation: A skilful passive movement of a spinal joint beyond its active limit of motion but within the limit of its anatomical integrity. It is a localized high velocity, low amplitude (HVLA) thrust technique. Its purpose is to restore motion and function.